REMARKS

In accordance with the foregoing, claims 4, 7, 8, 11, 23, 30 and 31 are amended. Claims 12 – 22 are canceled without prejudice or disclaimer. No new matter is presented in this Amendment.

Objection to the Drawings:

At page 2 of the Office Action, the Examiner objected to the drawings under 37 C.F.R. 1.83(a) on the alleged grounds that the code limitations/constraints as further defined in claims 4, 7, 8, 11, 15, 18, 19, 22, 30 and 31 must be shown or the features canceled from the claims. For the following reasons, this objection is respectfully traversed and reconsideration is requested.

In FIGs. 2 and 3 of the drawings, first sync patterns are clearly shown by reference numeral 13 (or specifically by reference numerals 13a, 13b, etc.), and the second sync patterns are clearly shown by reference numeral 23 (or specifically by reference numerals 23a, 23b, etc.). Claims 4, 7, 8 and 11 are amended to clarify that each of the first and second sync patterns comprise a sync body and a sync identification. In other words, the presence of a sync body and sync identification is a property or characteristic of the first and second sync patterns. Sync bodies and sync identifications are exemplified in Table 1 and Table 2 of the application. Therefore, the drawings are in compliance with 37 CFR 1.83(a) and no additional drawings or amendment of drawings should be required. The objection should be withdrawn.

Objection to claims 2 – 31 under 37 C.F.R. 1.75(c)

Also at page 2 of the Office Action, the Examiner objected to claims 2 – 31 under 37 C.F.R. 1.75(c) as allegedly being in improper dependent form for allegedly failing to further limit the subject matter of a previous claim. For the following reasons, these objections are respectfully traversed and reconsideration is requested.

Regarding claims 2 – 11, the Examiner alleged that these claims add no further structural limitations to the storage medium. This objection is clearly in error, since it is beyond any question that each dependent claim further limits the claimed subject matter. Claim 2 further limits the information storage medium of claim 1 by requiring that at least one of the first and second sync patterns are disposed in plural locations, and the one sync patterns are arranged

such that adjacent pairs of the one sync patterns are separated by equal intervals. Claim 3 further limits the information storage medium of claim 2, by requiring that the second sync patterns are arranged in locations in the additional data area so that a size of each of the user data recorded in the user data area is equal to a size of each of the additional data recorded in the additional data area. Claim 4 further limits the information storage medium of claim 3, by requiring that each of the first and second sync patterns comprises sync data that comprise a sync body that does not satisfy a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k; and a sync identification that satisfies the RLL (d, k) code. Claim 5 further limits the information storage medium of claim 3 by requiring that the user data area comprises a plurality of the first sync patterns, and a total size of the additional data recorded in the additional data area is an integer multiple of a size of the user data recorded between an adjacent pair of the first sync patterns. Claim 6 further limits the information storage medium of claim 2, by requiring that the user data area comprises a plurality of the first sync patterns, and a total size of the additional data recorded in the additional data area is an integer multiple of a size of the user data recorded between an adjacent pair of the first sync patterns. Claim 7 further limits the information storage medium of claim 6, by requiring that each of the first and second sync patterns comprises sync data that comprise a sync body that does not satisfy a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k; and a sync identification that satisfies the RLL (d, k) code. Claim 8 further limits the information storage medium of claim 2, by requiring that each of the first and second sync patterns comprises sync data that comprise a sync body that does not satisfy a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k; and a sync identification that satisfies the RLL (d, k) code. Claim 9 further limits the information storage medium of claim 1, by requiring that the second sync patterns are arranged in the additional data area so that a size of each of the user data recorded in the user data area is equal to a size of each of the additional data recorded in the additional data area. Claim 10 further limits the information storage medium of claim 1, by requiring that the user data area comprises a plurality of the first sync patterns, and a total size of the additional data recorded in the additional data area is an integer multiple of a size of the user data recorded between two adjacent first sync patterns. Claim 11 further limits the information storage medium of claim 1 by requiring that each of the first and second sync patterns comprises sync data that comprise a sync body that does not satisfy a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum constraint of k; and a sync identification that satisfies the RLL (d,

k) code.

As noted above, claims 12 – 22 are canceled without prejudice or disclaimer, and the objection is therefore moot with respect to these claims.

Regarding claim 23, the Examiner alleges that this claim is a duplicate of claim 1. This allegation is clearly in error. Claim 23 relates to an information storage medium in which a user data area has a first sync pattern and an additional data area has a second sync pattern. Claim 1 relates to an information storage medium in which a user data area has first sync patterns and an additional data area has second sync patterns. Clearly, therefore, the scope of each claim is different.

Regarding claims 24 – 26, the Examiner alleges that these claims add no further apparatus limitations. This objection is clearly in error, since it is beyond any question that each dependent claim further limits the claimed subject matter. Claim 24 limits the information storage medium of claim 23 by requiring that the first sync pattern is disposed in a first location and a second location of the user data area so as to define a first size of the user data, that the second sync pattern is disposed in a first location and a second location of the additional data area so as to define a second size of the additional data, and that the first size is equal to the second size. Claim 25 limits the information storage medium of claim 23 by requiring that another user data area having the first sync pattern, the additional data area being disposed between the user data area and the another user data area. Claim 26 limits the information storage medium of claim 23 by requiring that the user data area comprises error correcting code (ECC) recording units.

Regarding claims 28, 30 and 31, the Examiner alleged that these claims add no further apparatus limitations. This objection is clearly in error, since it is beyond any question that each dependent claim further limits the claimed subject matter. Claim 28 limits the recording and/or reproducing apparatus of claim 27 by requiring that the first sync pattern is disposed in a first location and a second location of the user data area so as to define a first size of the user data, the second sync pattern is disposed in a first location and a second location of the additional data area so as to define a second size of the additional data, and wherein the first size is equal to the second size. Claim 30 limits the recording and/or reproducing apparatus of claim 27by requiring that the controller further detects in the first sync pattern: a sync body that does not satisfy a run-length limited (RLL) (d, k) code having a minimum constraint of d and a maximum

constraint of k; and a sync identification that satisfies the RLL (d, k) code. Claim 31 limits the recording and/or reproducing apparatus of claim 30 by requiring that the controller further detects in the second sync pattern: a second sync body that does not satisfy the RLL (d, k) code; and a second sync identification that satisfies the RLL (d, k) code.

Regarding claim 29, the Examiner alleged that the term "transfers" is unclear. It is not seen how this allegation is relevant to an objection under 37 CFR 1.75(c), and it is not understood why the Examiner would regard this particular term to be unclear. It is respectfully submitted that the meaning of the term "transfer" would be clear to persons skilled in the art as an operation carried out by a recording and/or reproducing apparatus.

In view of the foregoing, it is respectfully requested that all of the objections to claims 2 – 11 and 23 - 31 be withdrawn.

Rejection of claims 1 – 11 and 23 – 26 under 35 U.S.C. §101:

At page 3 of the Office Action, the Examiner rejected claims 1-11 and 23-26 under 35 U.S.C. §101 on the alleged grounds that the claimed invention is directed to non-statutory subject matter, referring to M.P.E.P section 2106. The Examiner alleged that the "wherein" clause of claims 1 and 23 is interpreted as non-descriptive functional subject matter. For the following reasons, this rejection is respectfully traversed and reconsideration is requested.

The basis for the rejection is not understood. The Examiner characterizes the subject matter of claims 1 and 23 as "non-descriptive functional subject matter". It is not understood how characterizing the subject matter of claims 1 and 23 as non-descriptive functional subject matter raises any issue under 35 U.S.C. §101. For example, a hammer, a car engine and a writing utensil are examples of non-descriptive functional subject matter, and these would clearly be considered to be statutory subject matter.

Under the Examination Guidelines for Computer-Related Inventions set forth at Section 2106 of the M.P.E.P and also to Annex IV of the Interim Guidelines for Examination of Patent Application for Patent Subject Matter Eligibility set forth at 1300 OG 132 (Nov. 22, 2005), a computer readable medium encoded with a data structure that defines structural and functional interrelationships between the data structure and the computer software and hardware components that permit the data structure's functionality to be realized is statutory subject matter.

In the present application, independent claim 1 is directed to an information storage medium for use a recording and/or reproducing apparatus. The information storage medium includes a user data area in which user data is recorded and which has first sync areas. The information storage medium also includes an additional data area located in an area before or after the user data area. The additional data area includes second sync patterns that are different from the first sync patterns such that a recording and/or reproducing apparatus distinguishes between the user area and the additional data area according to the first sync pattern or second sync pattern. Claim 23 contains similar limitations, reciting that the user data area has a first sync pattern and that the additional data area has a second sync pattern.

The claims clearly define functional subject matter that is physically embodied in a computer-readable medium. In particular, independent claims 1 and 23 provide for the information storage medium to have a user data area and an additional data area and provide that the user area and additional data area have different sync patterns such that the recording and/or reproducing apparatus can distinguish the user data area and the additional data area. Accordingly, the subject matter of claims 1 – 11 and 23 – 26 is clearly statutory under 35 U.S.C. §101. Therefore, the rejection should be withdrawn.

Rejection of claims 12 – 22 and 27 – 31 under 35 U.S.C. §102:

Claims 12 - 22, 27 - 31 were rejected under 35 U.S.C. §102(b) as being anticipated by Roth et al. (U.S. Patent 6,188,335). The Examiner alleged that Roth et al. discloses a digital transmission method for recording data that provides for the placement of appropriate sync signals interleaved between data areas. The Examiner alleged that first and second sync patterns are self-evident and that plural patterns are disclosed. The Examiner further alleged that regarding claims 14 and 20, data areas are disclosed. The Examiner further alleged that with respect to claims 15, 18, 19 and 22, the constraints of d,k are disclosed. The Examiner further alleged that with respect to claims 16, 17 and 21, an integer multiple is present. The Examiner further alleged that with respect to claim 27, a recording/reproducing unit is inherently present and that the controller is performed by the CPU element following the overall process/method limitations disclosed. The Examiner further alleged that with respect to claim 28, the first and second locations for the sync signals/patterns are so defined. The Examiner further alleged that with respect to claim 29, data is transferred. The Examiner further alleged that with

respect to claims 30 and 31, the d,k constraints are present. For the following reasons, this rejection is respectfully traversed and reconsideration is requested.

As noted above, claims 12 – 22 are canceled without prejudice or disclaimer, and the rejection is therefore moot with respect to these claims.

Independent claim 27 relates to a recording and/or reproducing apparatus for use with an information storage medium, comprising a recording and/or reproducing unit to optically transfer data including user data and/or additional data between the apparatus and the information storage medium; and a controller to control the recording and/or reproducing unit to determine a user data area of the information storage medium according to a first sync pattern recorded on the information storage medium, to determine an additional information area of the information storage medium according to a second sync pattern other than the first sync pattern recorded on the information storage medium, to transfer the user data with respect to the determined user data area, and to transfer the additional data with respect to the determined additional information area.

Roth et al., on the other hand, relates to a method of encoding and decoding data using multiple coding schemes that may employ single encoding and decoding tables. Contrary to what is alleged by the Examiner, Roth et al. does not describe any method of recording information on and/or reproducing information from an information storage medium that includes a user data area in which user data is recorded and an additional data area located in an area before or after the user data area and in which second sync patterns are formed in the additional data area that are different from first sync patterns in the user data area. The Examiner provides no basis for the allegation that first and second sync patterns wherein the second sync patterns used in an additional data area are different from the first sync patterns used in the user data area would be self-evident. In fact, as described at Col. 11, line 42, Roth et al. uses a single bit pattern for synchronization. Moreover, since Roth et al. does not describe first and second sync patterns, Roth et al. does not disclose a recording and/or reproducing apparatus that determines a user data area of a information storage medium according to a first sync pattern recorded on the information storage medium, determines an additional information area of the information storage medium according to a second sync pattern other than the first sync pattern recorded on the information storage medium, transfers the user data with respect to the determined user data area, and transfers the additional data with respect to the determined additional information area as required by independent claim 27. Therefore, the rejection should be withdrawn.

Moreover, for the same reasons as described above, claims 1 – 11 and 23 – 26 are also allowable over the applied art.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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